

Amendments to the Claims:

Listing of Claims:

1 – 23 (Canceled)

24. (New) A method of adjusting initial CMY data values comprising:
determining a relative amount of chroma in the initial CMY data values;

and

producing color saturation adjusted CMY data values as a function of the
relative amount of chroma in the initial CMY data values using:

$$C = C + (SAT_C(C) - C) * (1 - \text{RATIO})$$

$$M = M + (SAT_M(M) - M) * (1 - \text{RATIO})$$

$$Y = Y + (SAT_Y(Y) - Y) * (1 - \text{RATIO})$$

wherein SAT_C(C), SAT_M(M), and SAT_Y(Y) are maximum color saturation adjusted values, and RATIO is a ratio between a minimum of the initial CMY data values and a maximum of the initial CMY data values.

25. (New) A method of adjusting initial primary color data values, comprising:

determining a relative amount of chroma in the initial primary data values;

and

producing color saturation adjusted primary data values as a function of the relative amount of chroma in the initial primary color data values;

wherein producing color saturation adjusted primary color data comprises:

for each of the initial primary color data values, producing a color saturation adjusted primary color data value by adding to the initial primary color data value a product of (1) a difference between a maximum saturation adjusted value for the primary color data value and the original primary color data value, and (2) one minus a ratio between a minimum of the initial primary color data values and a maximum of the initial primary color data values.

26. (New) A method of adjusting initial primary color data values, comprising:

determining whether the initial primary color data values are all zero;

determining whether the initial primary color data values are equal; and

producing color saturation adjusted primary color data values if the initial primary color data values are not all zero and if the initial primary color data values are not equal;

wherein producing color saturation adjusted primary color data comprises:

for each of the initial primary color data values, producing a color saturation adjusted primary color data value by adding to the initial primary color data value a product of (1) a difference between a maximum saturation adjusted value for the primary color data value and the original primary color data value, and (2) one minus a ratio between a minimum of the initial primary color data values and a maximum of the initial primary color data values.

27. (New) A method of adjusting initial primary color data values, comprising:

determining a relative amount of gray in the initial primary color data values;

determining a relative amount of chroma in the initial primary color data values;

for each of the initial primary color data values, adding a portion of the initial data value and a portion of a corresponding maximum color saturation adjusted value to produce respective color saturation adjusted primary color data values;

wherein the portion of the initial data value is a function of the relative amount of gray and the portion of the maximum saturation adjusted value is a function of the relative amount of chroma;

wherein determining a relative amount of gray comprises determining a relative amount of gray using:

$$\text{RATIO} = \text{MIN}(C, M, Y) / \text{MAX}(C, M, Y)$$

wherein $\text{MIN}(C, M, Y)$ is a minimum of the initial CMY data values and $\text{MAX}(C, M, Y)$ is a maximum of the initial CMY data values;

wherein determining a relative amount of chroma comprises calculating $(1 - \text{RATIO})$; and

wherein adding a portion of the initial data value and a portion of a corresponding maximum color saturation adjusted value to produce respective color saturation adjusted primary color data values comprises:

$$C = C * \text{RATIO} + \text{SAT_C}(C) * (1 - \text{RATIO})$$

$$M = M * \text{RATIO} + \text{SAT_M}(M) * (1 - \text{RATIO})$$

$$Y = Y * \text{RATIO} + \text{SAT_Y}(Y) * (1 - \text{RATIO})$$

wherein $\text{SAT_C}(C)$, $\text{SAT_M}(M)$, and $\text{SAT_Y}(Y)$ are maximum color saturation adjusted values.

28. (New) A method of adjusting initial CMY data values comprising:
determining a relative amount of chroma in the initial CMY data values;
and

gray balancing and color saturation adjusting the initial CMY data values in such a manner that more chroma results in more saturation adjustment and less gray balance adjustment of the initial CMY data values, while less chroma results in less saturation adjustment and more gray balance adjustment of the initial CMY data values.

29. (New) The method of claim 28, wherein gray balancing and color saturation adjusting the initial CMY data values comprises gray balancing and color saturation adjusting the initial CMY data values using:

$$C = \text{GRAYBAL_C}(C) * \text{RATIO} + \text{SAT_C}(C) * (1 - \text{RATIO})$$

$$M = \text{GRAYBAL_M}(M) * \text{RATIO} + \text{SAT_M}(M) * (1 - \text{RATIO})$$

$$Y = \text{GRAYBAL_Y}(Y) * \text{RATIO} + \text{SAT_Y}(Y) * (1 - \text{RATIO})$$

wherein GRAYBAL_C(C), GRAYBAL_M(M) and GRAYBAL_Y(Y) are maximum gray balance adjusted values; RATIO is a ratio between a minimum of the initial CMY data values and a maximum of the initial CMY data values; and SAT_C(C), SAT_M(M), and SAT_Y(Y) are maximum color saturation adjusted values.